

## CLAIMS

1. A process for producing a protein of interest, characterized in that it comprises:
- culturing a bacterial strain which expresses said protein of interest, and which can be obtained from a Gram-positive bacterium, the size of the genome of which bacterium is at most equal to 3.2 Mb, by mutation which inactivates the HtrA surface protease of said bacterium;
  - producing said protein of interest exported by said strain.
2. The process as claimed in claim 1, characterized in that the starting Gram-positive bacterium is chosen from the Streptococcaceae, Lactobacillaceae, Bacillaceae of the Staphylococcus and Listeria genera, and Enterococcaceae of the Enterococcus genus.
3. The process as claimed in claim 2, characterized in that the starting Gram-positive bacterium is chosen from the group consisting of Lactococcus spp., Lactobacillus spp., and Streptococcus thermophilus.
4. The process as claimed in any one of claims 1 to 3, characterized in that the bacterial strain used also lacks PrtP protease activity.
5. A bacterial strain which can be obtained from a Gram-positive bacterium, the size of the genome of which bacterium is at most equal to 3.2 Mb, as defined in any one of claims 1 to 3, by mutation which inactivates the HtrA surface protease of said bacterium, and which also comprises at least one cassette for expressing a gene of interest, with the exception of a *Lactobacillus helveticus* strain comprising a single expression cassette consisting of the sequence encoding the *gusA* reporter gene inserted into the *htrA* gene of said strain, under the transcriptional control of the promoter of said gene.

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6. The bacterial strain as claimed in claim 5, characterized in that it also lacks Pr<sup>t</sup>P protease activity.

7. The use of a bacterial strain as defined in any  
5 one of claims 1 to 4, for preparing a fermented product.

8. The use of a bacterial strain as defined in any one of claims 1 to 4, for preparing a dietetic food.

9. The use of a bacterial strain as defined in any  
10 one of claims 1 to 4, for preparing a medicinal product.

10. The use as claimed in claim 9, characterized in that said medicinal product is a vaccine.

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